

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



PTO/SB/21 (08-03)

Approved for use through 08/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

5

Application Number

10/694,075

Filing Date

October 27, 2003

First Named Inventor

Kandimalla et al.

Art Unit

NA

Examiner Name

NA

Attorney Docket Number

HYB-005US6

ENCLOSURES (Check all that apply)☐

Fee Transmittal Form

☐

Fee Attached

☐

Amendment/Reply

☐

After Final

☐

Affidavits/declaration(s)

☐

Extension of Time Request

☐

Express Abandonment Request

☒

Information Disclosure Statement

☐

Certified Copy of Priority Document(s)

☐Response to Missing Parts/
Incomplete Application☐Response to Missing Parts
under 37 CFR 1.52 or 1.53☐

Drawing(s)

☐

Licensing-related Papers

☐

Petition

☐Petition to Convert to a
Provisional Application☐

Power of Attorney, Revocation

☐

Change of Correspondence Address

☐

Terminal Disclaimer

☐

Request for Refund

☐

CD, Number of CD(s) _____

☐After Allowance communication
to Technology Center (TC)☐Appeal Communication to Board
of Appeals and Interferences☐Appeal Communication to TC
(Appeal Notice, Brief, Reply Brief)☐

Proprietary Information

☐

Status Letter

☒Other Enclosure(s) (please
Identify below):**Remarks**

* Copy of postcard

* PTO Form 1 449

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENTFirm
or
Individual name

Wayne A. Keown, Ph.D. (Reg. No. 33,923)

Signature

W. A. Keown

Date

2/5/04

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name

Laura Labrier

Signature

Laura Labrier

Date

2/5/04

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kandimalla et al.
Serial No.: 10/694,075
Filed: October 27, 2003
Entitled: Modulation of Immunostimulatory Activity of
Immunostimulatory Oligonucleotide Analogs by Positional
Chemical Changes
Examiner: NA
Group Art Unit: NA
Attorney Docket No.: HYB-005US6 (1006/006)

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Applicants and their attorney are aware of the following publications and information listed on the attached PTO Form 1449, and in accordance with 37 C.F.R. §1.97 hereby submit these publications for the Examiner's consideration.

Applicants state that the current application is a Divisional application claiming priority to U.S. Patent Application Serial No. 09/965,116, filed September 26, 2001. Applicants also state that the references listed on the attached PTO Form 1449 were previously cited in the parent case and therefore copies of the references are not enclosed herewith.

This submission does not represent that a search has been made and does not constitute an admission that the listed documents are material to patentability or that the listed documents are prior art. If it should be determined that any of the listed documents constitute "prior art"

under United States law, Applicants reserve the right to present to the Office relevant facts and law regarding the appropriate status of such documents.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits and is therefore submitted as both timely and proper. Therefore, no fees are believed to be due.

Respectfully submitted,

Date:

2/5/04

W.A. Keown
Wayne A. Keown
Reg. No. 33,923

Keown & Associates
500 West Cummings Park
Suite 1200
Woburn, MA 01801
781-938-1805 (Telephone)
781-938-4777 (Facsimile)

INFORMATION DISCLOSURE IN AN APPLICATION

(Use several sheets if necessary)

Sheet 1 OF 2

Docket Number

HYB-005US6

Application Number

10/694,075

Applicant

Kandimalla et al.

Filing Date

10/27/03

Group Art Unit

NA

U.S. Patent Documents

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,149,798	09/22/92	Agrawal et al.	536	27	

Foreign Patent Documents

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	WO99/62923		PCT				

Other Documents (Including Author, Title, Date Pertinent Pages, Etc.)

C1.	Khorana et al. (1972) "Studies on Polynucleotides," <i>J. Molec. Biol.</i> 72:209
C2.	Reese (1978) "The Chemical Synthesis of Oligo- and Poly-Nucleotides By The Phosphotriester Approach," <i>Tetrahedron</i> 34:3143-3179
C3.	Beaucage et al. (1981) "Deoxynucleoside Phosphoramidites - A New Class of Key Intermediates for Deoxypolynucleotide Synthesis," <i>Tetrahedron Lett.</i> 22:1859-1862
C4.	Connolly et al. (1984) "Synthesis and Characterization of an Octanucleotide Containing the EcoRI Recognition Sequence With A Phosphorothioate Group At The Cleavage Site," <i>Biochemistry</i> 23:3443
C5.	Agrawal et al. (1987) "Oligodeoxynucleotide Methylphosphonates: Synthesis and Enzymic Degradation," <i>Tetrahedron Lett.</i> 28(31):3539-3542
C6.	Jager et al. (1988) Oligonucleotide N-Alkylphosphoramidates: Synthesis and Binding to Polynucleotides," <i>Biochemistry</i> 27:7237
C7.	Agrawal et al. (1988) "Oligodeoxynucleoside Phosphoramidates and Phosphorothioates As Inhibitors of Human Immunodeficiency Virus," <i>Proc. Natl. Acad. Sci. USA</i> 85:7079-7083
C8.	Zon et al. (1991) "Phosphorothioate Oligonucleotides" <i>Oligonucleotides and Analogues: A Practical Approach</i> pp. 87-108
C9.	Kuramoto et al. (1992) "Oligonucleotide Sequences Required For Natural Killer Cell Activation," <i>Jpn. J. Cancer Res.</i> 83:1128-1131
C10.	Crooke (1993) "An Overview of Progress In Antisense Therapeutics," <i>8 Antisense & Nucl. Acid Drug Dev.</i> 115-122 CRC Press, Boca Raton, Florida
C11.	Zon (1993) "Protocols for Oligonucleotides and Analogs," <i>Methods in Molecular Biology</i> Vol. 20, pp. 165-189
C12.	Pisetsky et al. (1994) "Stimulation of Murine Lymphocyte Proliferation By A Phosphorothioate Oligonucleotide With Antisense Activity For Herpes Simplex Virus," <i>54 Life Sci.</i> 101
C13.	Yamamoto et al. (1994) "Lipofection of Synthetic Oligodeoxyribonucleotide Having a Palindromic Sequence of AACGTT to Murine Spenocytes Enhances Interferon Production and Natural Killer Activity," <i>38 Microbiol. Immunol.</i> 831
C14.	Agrawal et al. (1995) "Modified Oligonucleotides as Therapeutic and Diagnostic Agents," <i>Curr. Opin. Biotechnol.</i> 6:12-19
C15.	Krieg et al. (1995) "CpG Motifs In Bacterial DNA Trigger Direct B-Cell Activation," <i>Nature</i> 371:546-549
C16.	Klinman et al. (1996) "CpG Motifs Present in Bacterial DNA Rapidly Induce Lymphocytes to Secrete Interleukin 6, Interleukin 12, and Interferon γ ," <i>93 Proc. Natl. Acad. Sci. USA</i> 2879
C17.	Liang et al. (1996) "Activation of Human B Cells By Phosphorothioate Oligodeoxynucleotides," <i>J. Clin. Invest.</i> 98:1119-1129
C18.	Zhao et al. (1996) "Effect of Different Chemically Modified Oligodeoxynucleotides on Immune Stimulation," <i>Biochem. Pharm.</i> 51:173-182
C19.	Chu et al. (1997) "CpG Oligodeoxynucleotides Act As Adjuvants That Switch On T Helper 1 (Th1) Immunity," <i>186 J. Exp. Med.</i> 1623

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609: Draw Line through citation if not conformance and not considered. Include copy with next communication to applicant.

(Use several sheets if necessary)

HYB-005IIS6

10/694.075

Applicant

Kandimalla et al.

Filing Date

Group Art Unit

10/27/03

NA

Sheet

2

OF

2[illegible]

EXAMINER

DATE CONSIDERED _____

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609: Draw Line through citation if not conformance and not considered. Include copy with next communication to applicant.